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GANGRENE OF THE LUNGS.

FROM DR. GERHARD'S LECTURES ON DISEASES OF THE LUNGS.

THIS, like gangrene in other parts of the body, may occur either as a primary or secondary affection. When primary, it is probably owing to an alteration in the condition of the blood, which, being rendered unfit for nutrition, can no longer support the vitality of the parts. It occurs as a secondary affection in cases of asthenic pneumonia. The anatomical characters of the gangrene are nearly the same in both forms, although, when it is in its secondary form, the tissue is at first hard and congested, and is seated in the midst of an inflamed parenchyma, while, in the primary form, it is merely infiltrated with a thin, serous liquid, which is evidently in a state of incipient gangrene, and gives rise to the fœtor of the breath met with even in the first stage of the affection.

In the second stage, the tissue begins to break down, and gangrenous matter is expectorated; next, the bronchial tubes slough off, and nothing is left in a sound state but the vessels: these resist the destructive process for a long time; and on examination after death they are usually seen traversing the cavity; however, after a while, they, too, are destroyed, and their destruction sometimes gives rise to a hæmorrhage which destroys the patient, although generally the blood has ceased to circulate through them before they slough, and little or no hæmorrhage ensues. The sputa and breath in this stage of the disease are pathognomonic; they are both exceedingly fœtid, and the disease can, on this account, be easily distinguished from any other. There are two varieties of the gangrenous sputa: one consists of a dark, thin liquid, which somewhat resembles tobacco juice or liquorice, occasionally containing small pieces of black, gangrenous lung; the other consists of a grayish-yellow, pasty fluid, which is probably a mixture of pus and gangrenous liquid; the latter occurs most frequently in cases following pneumonia: both, however, are extremely fœtid, though the odor differs slightly. In some cases of phthisis the sputa resemble the second variety, and it is probable that in these cases the tuberculous portion of the lung becomes gangrenous.

The third stage begins with the formation of a cavity, which continues to increase for some time, and may go as far as to involve a lobe, or even nearly the whole of one lung. After the formation of the cavity, the sputa are nearly the same, consisting of a thin, fœtid fluid, frequently stained with blood, which flows from the sphacelated vessels. When the case terminates fatally, the sputa increase in quantity, and the patient

gradually sinks until he is completely exhausted, and death ensues. But when the disease terminates favorably, the following changes take place: the gangrenous portion of the lung is first circumscribed by a membrane which separates it from the surrounding healthy tissue. As the gangrenous portion sloughs away, this membrane is left as a lining to the cavity, and secretes pus; therefore, we find the latter fluid at first mixed with the gangrenous sputa, and supplanting it entirely when the whole of the diseased portion has been removed. As the inflammation subsides, the membrane assumes the character of a mucous membrane, and at last becomes similar to that lining smaller tubes and air-vesicles, which resembles very closely the serous membranes in the delicacy of its texture. If the cavity is excluded, the lining membrane being no longer exposed to the stimulus of the air, loses its mucous character entirely, and we find a cyst lined with a membrane, which is almost serous, and nearly similar to that found in the brain and elsewhere after cicatrization; this may continue during the remainder of the existence of the individual, or be gradually obliterated by the formation of cellular tissue. After the entire cure of the gangrene, the tissue involved is more or less dense, and contains less than the natural proportion of air.

The local signs of this disease are the cough, expectoration, and fœtor of breath. The cough at first resembles that of ordinary catarrh, but as the disease advances, it becomes looser and paroxysmal in its character, which is produced by the accumulation of fluid in the bronchial tubes requiring a violent effort to throw it off, which ceases as soon as this is accomplished, and the paroxysm does not recur until the accumulation of fluid again renders this effort necessary. These fits of coughing are often extremely distressing to the patient.

The physical signs are, in the first stage, feeble respiration and a moist rhonchus, generally either the mucous or the sub-crepitant; the percussion is either natural or a little dull. They are not, therefore, characteristic.

As the disease advances, we find the usual signs of a cavity, viz.: cavernous respiration, a loose gurgling and cavernous resonance of the voice, or pectoriloquy; the last, however, is not so clear as in phthisis, unless the cavity should be large, and near the surface of the lung, for the quantity of liquid in the cavity, and the softness of its parietes, deaden the resonance. When cicatrization takes place, we find merely feebleness of respiration, which gradually diminishes, but does not entirely disappear. If the liquid is discharged from the cavity in its early stages, the cavernous respiration and resonance of the voice are rendered much clearer.

The general signs are the following: there is usually considerable fever during the progress of the disease, with a small, frequent, irritable pulse; sometimes the pulse is exceedingly feeble. The fever is only important as it is connected with the prognosis, which is very unfavorable when the fever is high, and the gangrene is progressing; but if the disease do not advance, the fever is unimportant. There is an almost complete loss of appetite, produced by the nauseating character of the gangrenous liquid which is swallowed by the patient, who often has diarrhœa from the same cause. The skin is pale, and usually lead-colored in the advanced stage,

which is observed in almost all cases of gangrene, whatever part of the body may be affected. Very often there is extreme dyspnoea.

Prognosis.—As an ordinary result, about one half of those attacked will die. In hospitals the mortality is rather greater, amounting to three fifths, while in private practice it is probably about two fifths.

Diagnosis.—The only pathognomonic characters of gangrene, are the foetid breath, and expectoration of the patient. When these occur as an acute disorder, or supervene suddenly upon a chronic one, they are quite characteristic of the disease. If they occur slowly, and continue for a long period, they depend upon a vitiated secretion of the bronchial membrane, caused by chronic bronchitis; but this either never occurs in acute inflammations of the lungs, or is so rare as not to be taken into the account. Numerous as are the cases of gangrene which I have met with in hospital practice, I do not recollect a case in which the foetid sputa arose from simple bronchitis. The other signs of the disease are common to it and some other affections of the lungs; but the rapidity of the softening, and the formation of a large cavity in a short period, occur so seldom except from gangrene, that these signs are very good indications of the disease.

Causes.—About these it will be proper to say a word or two before going farther. The proximate, and at times mainly predisposing cause of this affection, is an altered condition of the blood, which becomes thin, and probably is vitiated in some unknown manner, which frequently coincides with a local inflammation. The ultimate causes are intemperance, indulgence in food of an unnutritious nature. An attack of some acute disease, most frequently pneumonia, is the immediate exciting cause in rather more than half the cases: in others, the disease is general, and arises from the fluids alone. In both cases gangrene of the lungs at times follows that of other parts of the body.

Treatment.—This is not in most cases antiphlogistic, but supporting in its character, tonics and stimulants being required. When you detect the occurrence of gangrene, you must use all the means that you possess to support the strength of the patient, who is in a short time very much prostrated; for this purpose you must administer stimulants and tonics, with the free use of porter, wine, and nutritious food. This is the best and almost only mode of treatment. There is a remedy, however, which I have used in addition, and, I think, with some benefit, viz., chlorine; I give from ten to twenty drops of the solution of the chloride of soda every three or four hours; if, however, there is disposition to diarrhoea in the patient, he will bear very little of it. In addition to the internal use of chlorine, I place near the patient's bed, vessels containing chloride of lime, which adds much to the comfort of the patient and his attendants. Opium is necessary in some cases of gangrene of the lungs, to check the violent paroxysms which return so frequently as to fatigue the patient extremely; but it should be given sparingly, for it has the disadvantage of checking the secretions of the lungs; hence it should be administered in the smallest possible quantity, and even then may be combined with senega and ipecacuanha, unless the nausea should be excessive.

The indications for the treatment of gangrene are, therefore, extremely

simple; a generous, supporting diet and treatment, with blisters, and, in a few cases, cupping to the chest, to check the intercurrent and accompanying inflammation, constitutes our main reliance, but the chances of success are greatly increased by the accessory remedies, some of which I have mentioned. The absolute antiphlogistic treatment is decidedly bad, and of the remedies which are classed under this head, none is more positively mischievous than mercury and its various preparations.—*Medical Examiner.*

REVIEW OF DR. GROSS'S PATHOLOGICAL ANATOMY.

[Continued from page 26.]

WE come now to the last chapter of the first part of the work, namely, the "*Heterologous Formations.*" These are four, viz., *Tubercle, Melanosis, Scirrhus* and *Encephaloid*. Although we are not very well pleased with the caption of this chapter, or the classification adopted, yet, as the author is so faithful in his descriptions, and has illustrated these four formations by most beautiful lithographic engravings, we are disposed upon the whole to pronounce it the best chapter in the first part of the work. Products are called heterologous because they have no resemblance to the natural tissues; but it is a fact which the author himself mentions, that tubercle bears some analogy to fibro-cartilage, encephaloid to the brain, melanosis to the coloring matter of the skin, and scirrhus to the dermoid texture. Our principal objection, however, to the classification of these products under one head, is that it is a commingling of organizable and unorganizable substances. *Scirrhus* and *encephaloid* are evidently organizable; *tubercle* probably is not; and *melanosis* certainly is not. The arrangement of Andral we like much better. He includes pus, tubercle, melanosis, cirronosis, fatty, gelatinous, saline, and coloring substances under the head of *Unorganizable Secretions*; and false membrane, scirrhus, sarcoma of different kinds, encephaloid and fungus hæmatodes (the four latter being different names for the same thing), with the hydatids and entozon in general, under the head of *Organizable Secretions*. Such an arrangement seems to us to be more systematic and scientific than the one adopted by Prof. Gross.

The first formation spoken of is *tubercle*. This is defined to be a small solid tumor, of an irregularly spherical figure, more or less opaque, of a pale yellowish color, seldom exceeding the volume of a pea, *susceptible of organization*, and composed of a peculiar scrofulous matter, which sooner or later undergoes a process of softening. It occurs in every organ of the body, but most frequently in the bronchial ganglia, lungs, mesenteric ganglia, and small intestines; oftener between the ages of 20 and 40 than at any other period, affecting many of the lower animals as well as the human species. The chemical composition of tubercle varies, as the author shows by the discrepant statements of two distinguished medical philosophers. According to Dr. Hecht it consists of equal parts of albumen, fibrin and gelatine; according to Thenard, 100 parts contained 98 of albumen and 2 of muriate of soda with phosphate and car-

bonate of lime. The author thinks that the existence of fibrin assimilates tubercle to the adventitious membranes of serous and mucous textures. Why may not melanosis, then, be assimilated to false membrane? It contains a small portion of *fibrin*, and yet the author considers it decidedly unorganizable.

There are four forms of tubercle, viz., the *miliary*, the *encysted*, the *infiltrated*, and the *stratiform*. These different forms are illustrated by figures in a very beautiful style. The inflammatory origin of tubercle is ably and zealously contended for, and the hydatid origin rejected. "After much reflection, however, upon the subject, and from careful and repeated examinations of tubercles in different organs of the body, in different individuals, and in different stages of their development and growth, I am constrained to believe that the heterologous formations are originally nothing but a species of coagulating lymph, thrown out as an effect of inflammatory irritation, and modified in its character according to the tissues in which it is deposited."

The organization of tubercle is next discussed, and notwithstanding our prejudices against the author, we must acknowledge that he has presented some very convincing facts and plausible arguments in support of his position.

"Thus, then, it may be stated, as a general proposition, that, when the tubercular matter is deposited upon the larger mucous surfaces, it is not susceptible of organization; whilst, when it is effused into the cavities of the cellular tissue, into the air-vesicles of the lungs, and into the intermolecular spaces of our organs, it may, and often does, become 'part and parcel' of the living frame. Within the last two years, I have examined not less than six specimens of organized tubercles, one occurring in the kidney, two in the spleen, one in the peritoneum, and two in the lungs. They were taken mostly from children under twelve months of age. The tubercles were of the *miliary* kind, and numerous vessels, loaded with florid blood, could be seen shooting into them in every possible direction, many of them penetrating a considerable distance into their substance. Their vascular supply would thus seem to be derived from the tissues in which they are deposited; and this, in the generality of cases, is no doubt true; nevertheless, there is reason to suppose that they occasionally possess a self-organizing power, analogous to that of the adventitious membranes in the splanchnic cavities."

The second heterologous formation treated of, is *melanosis*, which, according to Laennec, is "a homogeneous substance, very similar in its structure and consistence to a bronchial gland, of a deep black color, opaque, humid, and slightly unctuous to the touch." In its chemical composition it is analogous to the blood. It is miscible with water and alcohol, and assumes occasionally a brown and yellowish color. In its consistence it varies from ink to fibro-cartilage. Three varieties are described and illustrated by well-colored engravings, viz., the *tuberoïd*, the *lamellated*, and the *dot-like*. The tissues most liable to it are the cellular and adipous, and the organs most frequently affected are the liver, lungs and ovaries. Probably there is a melanotic diathesis in some cases. Melanotic matter is probably always poured out in the liquid form, and afterwards becomes

inspissated by the absorption of its thinner particles. Respecting the causes of the disease, the author says "nothing can be said to be known with any degree of certainty."

Such is the substance of the second section of the last chapter. We expected, after reading the general view contained in the first section of the formation of heterologous substances, that the author would have advocated the occasional organization of melanosis—and could not have had any hesitation in assigning as its cause "*inflammatory irritation*."

"*Scirrhus*" comes next in order. It is defined to be "a hard, crisp, opaque substance, of a light grayish color, with dull yellowish fibrous intersections, organized, liable to lancinating pains, occurring for the most part after the middle period of life, and passing sooner or later into ulceration." "Like tubercle, scirrhus has its regular period of growth, maturation and decay." It exists in several forms. It may be *tubercoid*, *lamelated*, *infiltrated*, and varies in its arrangement so as to resemble the *mammæ*, the *pancreas*, *fibrous texture*, *gelatine* and *adipose texture*. It consists of albumen, gelatine and fibrin in various proportions, and is considered analogous to tubercle. It attacks a number of organs simultaneously or in succession, the parts most liable to it being the glandular structure. It has, in the opinion of our author, a self-organizing power—a proper as well as a collateral circulation. It will be seen by the following that he believes it is always the result of inflammation.

"Tubercle, as we attempted to show in a preceding section, is always the result of inflammation; and that this is the case likewise with scirrhus seems sufficiently evident from what has been stated in regard to its exciting causes. Very frequently, it is true, the disease arises imperceptibly, without local injury or obvious constitutional derangement. But this certainly does not prove that inflammation is not concerned in its production. How often do we not find traces of inflammation after death, without having had the slightest indication of it during life. The fact, then, that it is not manifested always by the usual phenomena, does not invalidate the idea of its presence. The opinion that scirrhus and other malignant diseases are caused by inflammatory irritation, is not new. It has been zealously inculcated by Broussais, Breschet, Sanson, and other pathologists of the French school, and has likewise received the sanction of several of the most distinguished writers in Great Britain, Germany and Italy. The precise nature of this inflammation we cannot of course define: all that can be said about it is, that it is of a specific kind, and gives rise to the effusion of a fluid analogous to the fibrin of the blood, and not very dissimilar, consequently, from the matter of tubercle. The effusion that is thus produced takes place in the cellular element of our organs, the proper structure of which it gradually transforms, effaces or destroys."

The following seems to be the conclusion of the whole matter.

"From the foregoing remarks, then, it may be concluded, first, that scirrhus is invariably produced by inflammation; secondly, that it has a great predilection for the glandular viscera; thirdly, that it rarely occurs under the age of thirty; fourthly, that the matter of which it consists strongly resembles that of tubercle; and, in the fifth and last place, that this mat-

ter is deposited always into the cellular tissue of our organs, in such a manner as to transform, to a greater or less extent, their proper parenchymatous structure. After having existed for some time, varying from a few months to several years, the scirrhous matter manifests a disposition to become soft, the process by which this is effected, like that of tubercle, commencing at different parts of the diseased mass, from which it extends in various directions, until the whole or the greater portion of it is broken up and dissolved."

The last section of this last chapter is taken up with a consideration of "Encephaloid." The following extracts will give the reader an accurate idea of its substance.

"The most common seats of this morbid growth are the bones, eyes, testicles, liver, lungs, kidneys, uterus, lymphatic ganglions, and subcutaneous cellular tissue. In infants it often occupies the shoulder, the region of the clavicle, the side of the chest, and the fore-arm. In adults I have seen a number of cases where it attacked the hand and fingers. Never have I observed it in the inferior extremities; but that it sometimes occurs here, the writings of pathologists abundantly testify. Encephaloid has likewise been noticed in the veins, especially in those of the liver, of the kidney, and the uterus."

Three varieties are described and illustrated by plates: the *tubercloid*, the *stratiform*, and the *infiltrated*. The first "appears in the form of a circumscribed tumor, from the size of a pea to that of a muskmelon." The second is rare, and found only in the sub-serous cellular tissue, principally in that of the pleura and arachnoid, in circular patches, from the diameter of a pin-head to that of an American dollar, of a whitish, cream-like color, tolerably hard and dense, and from the fourth of a line to the twelfth of an inch in thickness." The third variety is also rare, and "is seen principally in the uterus, liver and lungs, where it forms small, irregular masses, of a semi-concrete consistence." The consistence of encephaloid varies from cream to fibro-cartilage. It is highly organizable, and has a proper and collateral circulation. As to the origin of this formation, the author is disposed to the belief that it is to be sought in a kind of vicarious action, whereby the cerebral matter, which should be deposited in the brain, finds a resting place "in the meshes of the cellular element of one or more organs of the body." "Encephaloid is emphatically a disease of early life." It sometimes lies dormant "until the part receives some injury, when it often grows with frightful rapidity." "If allowed to proceed, the diseased mass has a tendency to open and protrude, generally by ulceration, sometimes by sloughing, and occasionally by the bursting of an abscess situated in its interior."

"The diagnosis of an encephaloid tumor can, in general, be easily determined by its history, consistence and situation. In most instances, as has been already stated, the morbid mass is soft, elastic, and slightly fluctuating, with an irregularly lobulated surface. The skin exhibits a peculiar glossy aspect, and the subcutaneous veins are enlarged, tortuous, and of a beautiful bluish color. The pain that attends it is extremely uncertain, being sometimes scarcely perceptible, at other times very severe, sharp and lancinating. Add to these symptoms the fact that encephaloid

is essentially a disease of early life, and that it often occurs in situations where scirrhous is never found, and no difficulty can arise in coming to a correct decision in regard to the diagnosis."

We are surprised to find that the author has omitted to mention, what we suppose to be his conviction, that encephaloid is *invariably the result of inflammation*.

This closes what we have to say upon the first part of Prof. Gross's work—the "General Principles." We have been as impartial as possible in expressing our opinions upon his philosophy of morbid action. We believe seriously that he errs in making local inflammation invariably the punctum of disease, and this belief we have not been backward to express. We believe the author to be an ultraist, but not so great a one as are the disciples of Broussais. In this respect he is like every other author who presents himself as the advocate of an exclusive system, and no one but the exclusivist can adopt *all* his views. That portion of the "First Part" of the work, which is taken up with a description of morbid structure, is, perhaps, altogether equal, if not superior, to anything of the kind in the English language. We have nothing to say against the *Morbid Anatomy* of this part, but the Pathology we must reject, believing it to be untenable.

We come now to the Second Part, "Special Pathological Anatomy," in which the author considers, 1, the lesions of the blood and of the tissues in general; and, 2d, the lesions of particular organs. And here we shall not play the part of a fault-finder; and if any one has already passed sentence of condemnation upon us, we hope to find pardon by acting with politeness in our succeeding criticism. Dr. Gross has, in his Part II., displayed the character of an accurate observer, and of a learned and intelligible writer. His descriptions and illustrations of a part in a state of disease are such as to present it immediately before the eye of the reader, and make him familiar with every "part and parcel" thereof. In every chapter there is something to afford the attentive reader interest and instruction. We shall not attempt anything like an accurate analysis of the part, but will present such remarks and extracts as, we think, will give the reader a pretty accurate idea of the author's style and method. From the chapter on the Blood we make the following quotation:—

"Although I do not feel disposed to attach that great importance to the blood which the advocates of the old humoral pathology did, yet it cannot be denied that it is decidedly the most essential fluid in the animal economy, inasmuch as it furnishes the various materials which dispense vitality and nourishment to the different tissues, as well as vigor to its several organs, serving thus, in the expressive language of our medical ancestors, as the *pabulum* of life. From it all the solids are formed, and all the other liquids secreted; and hence it may justly be considered as the basis of every part of the complicated fabric, as, without it, it would be utterly impossible for any growth, whether healthy or morbid, to take place. Pervading every portion of the body, and penetrating every fibre, however minute, or however constituted—acquiring constantly new properties as it passes through the lungs, and losing them again as it mean-

ders through the rest of the system—it is in the highest degree probable, that, whilst it thus fertilizes the various structures, it may convey to them alike the elements of general health and of general disease. So long as it preserves its integrity, the impression which it makes upon the solids must be of the most salutary kind, calculated to stimulate the whole machine, and rouse it to the proper performance of its functions. Any departure from this state, although so slight as to escape our notice, would be followed, it is reasonable to presume, by a corresponding derangement in the hard parts. In inflammatory affections, it undergoes most important changes, exhibiting frequently, as will be presently seen, a peculiar buff-colored aspect: in dropsy, it is thin and pale, like weak claret; in plethora, on the contrary, it is thick, remarkably tenacious, firm, and of a deep-red complexion. If it be imperfectly elaborated, a morbid diathesis is established, which often lays the foundation of mortal maladies, and which is transmitted, in many instances, from the parent to the offspring. In this way “God visits the iniquity of the fathers on their children, down to the third and fourth generation,” as is exemplified in the hereditary predisposition to arthritic and tubercular diseases, mental imbecility, and a host of other disorders, as afflicting to the patient as they are generally perplexing to the practitioner.”

The lesions of the three grand constituents of the blood, viz., the *fibrin*, the *hematosine*, and the *serum*, are first described, and then follow the lesions of the blood as a mass. Under the head of changes of the fibrin, he has considered two phenomena; the formation, modification and cause of the buffy coat, and the want of coagulability. The following extract presents the author's explanation of the remote cause of the former, which is the best we have ever seen. “In the healthy state the fibrin is exceedingly tenacious, and the red particles are so intimately connected with it as to render it impossible for them to subside during the coagulation, however slowly this may be effected. In inflammatory affections, on the contrary, this cohesive property is either greatly diminished, or, what is more probable, the fibrin loses its affinity for these little bodies, which consequently gravitate to a greater or less depth before the blood separates into its two grand constituents. In this manner the top of the crassamentum is covered with a buff-colored layer, the thickness and density of which vary according to the repulsive power existing between the two elementary principles referred to, the intensity of the disease, the general state of the system, and the extent of the contraction of the inspissated mass.”

Several interesting cases of hemorrhagic diathesis are recorded in this chapter, depending on a want of coagulability in the fibrin. This want is attributed, in part, “to the insufficient supply of nervous influence, upon the presence of which the vitality of the fluid in question depends.”

The changes of the *hematosine*, mentioned by the author, are its spare existence, and its black color in cholera, typhus and plague, the latter attributed in part to diminution of nervous influence and the abstraction of the salts of the blood. Four alterations of the *serum* are considered, viz., milky, oily and watery serum, and serum destitute of animal and saline ingredients. The affections of the blood as a mass are then taken

up, and the consideration of these closes the chapter. We shall finish our notice of this chapter by presenting to the reader the last paragraph.

"To the instances now cited (*viz.*, *cholera*, *yellow fever*, *chlorosis*, *jaundice* and *scurvy*), numerous others might be added, equally striking and satisfactory, in which the vital fluid is most seriously altered, and transformed into a substance very different in its character from that observable in the healthy state of the economy. But to do this would far transcend the limits of the present work, and would be literally writing a treatise on individual maladies—a task which I do not feel disposed, even if this were the proper place, to undertake. From the facts that have been presented on this interesting subject, it cannot be doubted, I think, by any one who duly and impartially contemplates it, that the blood is a fruitful source of disease, or, in other words, that it is susceptible of various morbid impressions, of which, in many instances, it is the primary and original seat. Considering the vast surface from which the chyliferous vessels imbibe the nutritious matter, and the heterogeneous nature of our food and drink, it is highly probable that the elements of disease may thus readily find their way into the current of the circulation, and establish a prejudicial action in the solids, by which they in turn are disordered, and thrown into commotions incompatible with the harmony and well-being of the general system or of some of its numerous members, tied together as they all are, figuratively speaking, by the closest consanguinity."

If it be true that "the elements of disease may find their way into the circulation [and of this we cannot have the least doubt] and establish a prejudicial action in the solids," can we fix upon any one locality as a starting point, and declare that from that point disease radiates; or shall we say that in such cases, as in others, the nervous system *generally* becomes impaired, the solids *universally*, or, at least, wherever capillary circulation is going forward, may receive the morbid impression, and thus give rise to constitutional disorder independent of local inflammation?

[To be continued.]

OPERATION FOR LATERAL CURVATURE OF THE SPINE.

[THE following case, as reported in the London Lancet, by G. B. Childs, is wanting in one important particular, namely, the *result* of the operation. It shows, however, if nothing more, that practitioners on the other side of the Atlantic are striving to extend the benefits of the new mode of operating for the relief of various kinds of deformity.]

The subject of operation was a lad, 17 years of age, who had been affected with lateral curvature of the spine three years; his business was that of a printer, in which occupation he was daily employed in pulling the press, whereby he was in the habit of putting into excessive action the latissimus dorsi and rhomboid muscles of the right side, whilst those on the opposite were comparatively inactive; the consequence of this was, that in six months after his apprenticeship to the business he began to feel an uneasiness, and, as he described it, a burning sensation, in the upper and right side of the back. This was shortly afterwards followed by an enlargement of the right shoulder, and a lateral curvature in the dorsal

region. This continued to increase, so that when he applied to me, about eight months since, the deformity was very striking. On examining the back, I found the deviation to extend from the last cervical to about the sixth dorsal vertebra; below this the vertebrae suffered no displacement, but occupied precisely the mesial line of the back; a circumstance most unusual in a case of so long standing. The right shoulder was considerably elevated above its fellow, with a corresponding displacement of the clavicle; but there was no excurvation of the ribs on either side, they retaining their natural situations.

The rhomboid and trapezius muscles were greatly enlarged, and by bringing the fore-arm across the chest were so stretched, that a finger could easily be passed beneath the rhomboideus major. The muscles on the left side were so diminished in bulk, that they could scarcely be traced; a circumstance I hold of great importance in the operation.

His general health had been good, with the exception of enlarged cervical glands. As his means would not allow him to adopt a regular course of treatment for these affections, I recommended him to keep as much as possible in the prone position, to use my extension apparatus, and to employ certain forms of exercise.

In consequence of the nature of his employment, he was prevented from pursuing this course with the regularity wished, and the right arm was daily occupied in pulling the printing-press. I lost sight of him until last week, when he again applied to me; and, not finding the slightest improvement in the state of his back, I explained to him the nature of an operation which had been performed by M. Guerin, in Paris, and lately by Dr. Hunter, of Glasgow; and recommended him to undergo it, as the only probable means of effecting a cure, and, without hesitation, he assented.

The patient being placed in the prone position, with the chest considerably elevated, and the head hanging over the table, Mr. Coulson produced extension of the muscles, on the concave side of the curve, by drawing the left arm forwards; whilst Mr. White, by raising the right shoulder upwards and outwards, kept the rhomboid and trapezius on the stretch.

I then introduced the knife (which was about four inches in length and the eighth of an inch in breadth) as close to the ribs as possible, midway between the inferior angle of the scapula and the spinal column, and carried it upwards as far as its superior angle; I then withdrew the knife, bringing its cutting edge in contact with the anterior surface of the muscles, and as close as possible to the teguments, without wounding them, and in this way completed the operation, which occupied less than a minute. The loss of blood was trifling, and the patient complained of but little pain.

This case is interesting, inasmuch as it establishes the fact, that deformities of the spinal column are not always dependent on a diseased action of the muscles on the concave side of the curve, but that many of the occupations of life have a tendency to produce lateral curvature of the spine, by exciting unequal power over the antagonizing muscles, and on one side reversing their mode of action, as was seen in this case, the shoulder being made a fixed point, towards which the spine was forcibly drawn.

In the curvatures which are met with amongst young children and

delicate females, a totally different cause is at work, and the muscles on the convex side of the curve suffer a considerable diminution of bulk and loss of power, in consequence of their elongation, being made to take a circular course round the projecting vertebræ; and, by the same rule, those on the opposite side, having become shortened, acquire an increase of action, and are firmer and stronger.

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BOSTON, FEBRUARY 24, 1841.

EDWARDS'S OUTLINES OF ANATOMY AND PHYSIOLOGY.*

DR. LANE has executed a translation of this volume from the French, in a most creditable manner. It was not originally designed by the author to supersede other and more elaborate works on the same interesting subjects; but rather to subserve the purpose of a class of readers who could not, as general investigators, study all the intricacies of both sciences for the sake of an elementary knowledge of either. Dr. Lane seems to have had a just conception of the author's views, and in beautiful, yet simple language, presented the book in an attractive form to his countrymen. It appears to have been the translator's intention at one time, to have appended notes, but abandoned it, because, on a perusal of the text, they seemed unnecessary. Although there is a positive charm in simplicity and in untrammelled thoughts, we can assure Dr. Lane that anything he might have added, would have been gratifying to that large circle of personal friends who know that his literary and scientific qualifications are equal to all undertakings in which he is willing to engage.

This would be an admirable text-book for advanced classes in academic institutions. Nothing essential is passed over too hastily or superficially; nor any topics so discussed as to excite a prejudice against the general character of the work, and its fitness for such a destiny. But, after all, students of medicine will study it with increasing pleasure through pupillage and medical maturity. There is not so much of any subject as to fatigue the mind; nor so little as to leave an impression that it is too superficial for practical purposes.

Some of the xylographic illustrations are executed with exceeding neatness and accuracy. Both the type and paper are in the style of the house of Messrs. Little & Brown, whose reputation as publishers is not circumscribed by the boundaries of New England. We can only wish that the sales may equal the merits of this valuable, though unpretending, popular system of anatomy and physiology.

Crania Americana.—Dr. Morton's magnificent production is gaining him an enviable scientific distinction in Europe. Our exchanges speak in the warmest terms of praise—considering it an unsurpassed labor. It is about time for another edition—and we venture to predict an increasing

* *Outlines of Anatomy and Physiology.* Translated from the French of H. Milne Edwards, M.D. &c. &c. By J. F. W. Lane, M.D. Boston: C. C. Little & James Brown. 1841. Pp. 312, 8vo.

demand for the volume, huge as it is, for many succeeding years. The following is from the October No. of the British and Foreign Medical Review:—

"We have often regretted that the opportunities of original research which so abound in a newly-settled country have been so scantily embraced by our medical brethren of the United States; and that, in their zeal for the acquirement of the treasures of foreign science, they should so far overlook those in their own possession, of which they may justly be called upon to render an account. The work before us, however, goes far to redeem the national character; for it is one which any country might be proud to have produced."

"In conclusion, we have only to express again the gratification we have felt in the examination of Dr. Morton's unique and splendid work, and the hope that he will not relax in the prosecution of his interesting and important inquiries. We look forwards with much satisfaction to the continuation which he has given us reason to expect; and hope that he may obtain sufficient encouragement to enable him to complete his account of the *Crania Americana* in a manner which shall leave little for the anthropologist to desire."

Popular Lectures on Thomsonism.—During the past week a Dr. Draper, from Philadelphia it is understood, has been delivering a series of lectures in this city, on the claims and advantages of the new, or lobelia practice. The hall was densely filled by an attentive audience the evening we were present. On that particular occasion, the subject of the discourse was pulmonary consumption—and there was nothing objectionable in the graphic description which the speaker gave of the commencement and melancholy finale of that insidious malady. It was as correctly delineated as it is in the latest bibliographical authorities, and not essentially different. It were a waste of time to report Dr. Draper's theories, or his general teachings upon treatment, since the medical community are absolutely nauseated with the unceasing nonsense of treating the whole catalogue of human diseases with steam, cayenne pepper and Indian tobacco. That the gentleman to whom these observations especially apply, is a little above the ordinary class of Thomsonians, in point of intelligence, and in the tact for managing the sympathies of a mixed assembly who go to see a champion, is readily admitted.

Extraordinary Obesity of a Child.—At Mr. Harrington's Museum, in Court street, Boston, where the anomalies of the age are singularly concentrated by the enterprising proprietor, there is a child on exhibition by the name of Rosana D. Richardson, who presents in her person the following phenomena. She was born in Marlow, N. H., April 11th, 1833, and will therefore be eight years of age the ensuing April. In height she is four feet nine and a half inches; the girth round the waist is three feet nine and a half inches; about the abdomen, four feet eleven inches; and she weighs 211 lbs. Although a moving mass of fat, she appears in excellent health. In intellect she is completely a child—yet the expression of her face is that of a young woman of twenty. It will be perceived that she has gained prodigiously in obesity since we adverted to the case about a year since; and it is highly probable that the accumulation of fat will be such in the course of a few years more, should her life be spared, as to

excite far greater astonishment than at present. Our country has furnished few if any parallels to this. To medical men she must necessarily be an object of surprise; to visitors in general, a subject of wonder and astonishment. The father of Rosina assures us that his child, at birth, weighed but seven pounds.

There are a few individual histories, from medical records, that are here appended, to show that in other countries instances, similar in character, have been noticed.

Edward Bright, in England, at the age of four years weighed 104 lbs.; at 9, 124; at 20, 356; and at his death, 584 lbs. He was 5 feet 9½ inches tall, and measured under the armpits 5½ feet in girth; round the abdomen, 5 feet 11 inches; round the arm, 2 feet 2 inches; and round the leg, 2 feet 8 inches.—*Ephémérid.*

Frances Clay, who died at the Hotel Dieu, in Paris, in 1806, possessed the following enormous dimensions. In height she measured 5 feet 1 inch; round the abdomen, 5 feet 2 inches; between the loins, in breadth, 2 feet 6 inches. The circumference of the breast, at its base, was 28 inches. A plaister cast of Clay is in the School of Medicine of Paris.—*Journal of Medicine.*

Frederick Ahrens, a German, at Paris in 1819, at the age of 20, weighed 450 lbs. At birth he weighed 13 lbs.; at 6 months, 42 lbs.; and at the 4th year, 150 lbs. Like most other fat persons, he must have appeared rather short, since in height he was but 5 feet 5 inches.—*Dic. of Medical Sciences.*

Division of the Muscles of the Eye.—In this new department of operative surgery operators are becoming exceedingly expert in this city. Mention was recently made in one of the evening papers, that Dr. Davenport, well known to the readers of this Journal as an excellent writer on the diseases of the eye, operated for strabismus six times, successfully, last week. Others have also been fortunate. Cases are accumulating, which should have speedy publication. We shall be obliged to correspondents for reporting their operations—for it is by the publication of the experience of individuals, that the world is to be permanently benefited by this great achievement in modern surgery.

Registration of Births, Deaths and Marriages.—A petition was presented to Legislature, last week, from the Counsellors of the Massachusetts Medical Society, and the American Academy of Arts and Sciences, with regard to a law for the more effectual registration of births, deaths and marriages in this Commonwealth. As the laws now stands it would be quite difficult to prove a marriage—if a few guests who happened to have been present on the happy occasion, were dead. As to births, it rarely happens that any record is made at all. Much has been said of the imperfections of the bills of mortality in the State—and to remedy all these defects, it is proposed to have the influence of additional laws.

Counsellors' Meeting.—A special session of the Council of the State Medical Society, was held at the Athenæum on Thursday, on business relative to the petition for the charter of a medical college at Lowell. Not being present through the whole meeting, we are unable to give the par-

ticalars. A complete history of the matter may be expected on the final action of the Legislature.

Sudden Development of St. Vitus's Dance.—A paper in the western part of New York, Danville, records the singular fact, that a little boy was so much alarmed at seeing a mendicant, who had this disease, come suddenly into a room, that he ran out of the apartment, agitated and greatly frightened. From that period he has had the same malady, precisely—and measures of treatment have been adopted to overcome, if possible, this severe and unlooked-for calamity.

Massachusetts General Hospital.—From the Report of the Superintendent we learn that there were admitted to the Hospital from Jan. 1, 1840, to Jan. 1, 1841, 362 patients, viz., 210 males and 152 females. Those paying board were 170; do. part of the time, 24; entirely free, 168. Discharged during the same time, 355; of whom 142 were discharged well, 96 much relieved, 41 relieved, 43 not relieved, 3 not treated, 2 eloped, 4 unfit, 2 cured, and 22 died. Proportion of deaths to the whole number of results, 1 in 16. The average number in the hospital has been 47.63. The average time of stay of the paying patients has been 4 1-9 weeks; of the free patients, 6 1/4 weeks. The weekly expense of each patient, after deducting the cost of repairs, &c., was \$4 33.

The McLean Asylum for the Insane.—From Dr. Bell's very interesting Report we find that the number of insane patients under the care of the Asylum during the last year, was 263—143 males and 120 females; of whom there remained at the beginning of the year, 108, and have been received through the year, 155. There have been discharged during the year, 138; of whom were, recovered, 75; much improved, 12; improved, 20; not improved, 18; died, 13; leaving 125 now in the house. The proportion of recoveries, during the last 4 years, in all the cases, old and recent, has been about 60 per cent.; and of deaths, between four and five per cent.

Grahamism.—In a recent communication from Mr. Graham to the Health Journal, occurs the following singular expression. "In tracing my thoughts around me, I perceive that, so far as my knowledge extends, nearly all those who have been unsuccessful in their experiments on what they called the *Graham System* of diet, have been characterized by extreme penuriousness—in many cases, detestable stinginess." Was there any reason for limiting the remark to those who have been unsuccessful?

Local Paralysis.—M. Dezeimeris, a German, has made use of the following treatment where deafness and blindness supervened upon a severe injury of the head:—R. Phosphori, gr. j., solve in olei animalis æther. 3i.; olei caryophyll. ʒi. Dose. Three drops, to be gradually increased to 20, to be taken on a piece of sugar night and morning. And R. Phosphori, gr. ij.; olei animalis æther. 3i.; olei cajuputi, 3ss. Solve. The eyelids to be rubbed with this embrocation three or four times daily.

Number of deaths in Boston for the week ending Feb. 20, 26.—Males, 16. Females, 10.
Of consumption, 5—intemperance, 2—infantile, 2—quincy, 1—croup, 2—dysentery, 1—sudden, 1—typhoid fever, 1—lung fever, 4—teething, 1—fit, 1—child-bed, 2—apoplexy, 1—ever complaint, 1.

VERMONT ACADEMY OF MEDICINE.

Lectures will commence on the second Thursday of March, 1911, and continue fourteen weeks.

Theory and Practice of Medicine, by	- - -	HORACE GREEN, M.D., N. Y.
Anatomy and Physiology, by	- - -	ROBERT NELSON, M.D., N. Y.
Chemistry and Pharmacy, by	- - -	JAMES HADLEY, M.D., Fairfield, N. Y.
Surgery and Medical Jurisprudence, by	- - -	JAMES BRYAN, M.D., Philadelphia.
Materia Medica and Obstetrics, by	- - -	JOSEPH PERKINS, M.D., Castleton, Vt.
General Pathology, by	- - -	C. L. MITCHEL, M.D., N. Y.
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Fees for the course, \$50. Matriculation, \$5. Graduating expenses, \$15.

Castleton, Vt., Nov., 1910.

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JOSEPH PERKINS,
Registrar.

DR. J. J. MOORMAN,

RESIDENT PHYSICIAN AT THE WHITE SULPHUR SPRINGS, VA.

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October 23d, 1910.

O. 28.—1am1M&cheoptO

MEDICAL TUITION FOR 1910-41.

THE subscribers will commence their course of instruction for the ensuing medical year, on November 1st, 1910 (the period at which the Lectures at the Medical College of Harvard University begin).

Minute examinations will be held on all the branches of medicine and surgery during the lectures, in order that students intending to offer themselves for examination at the College in the spring, may be prepared. Students may be assured that they will have constant and abundant opportunities for the cultivation of practical anatomy at all seasons of the year. After the lectures, the arrangements will be as follows until the ensuing November.

Free access at all hours to the United States Marine Hospital at Chelsea will be granted; a daily morning visit will be made by Dr. Stedman, and every week Drs. Perry, Bowditch and Wiley will visit in the afternoon, for the purpose, chiefly, of learning the physical signs of diseases of the chest. Dr. Bowditch will deliver a course of lectures on diseases of the chest and air passages. Admission to the medical and surgical practice at the Massachusetts General Hospital, the infirmary for Diseases of the Lungs, and to the practice of one of the Dispensary Districts; occasional opportunities for operative surgery and midwifery.

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Midwifery, Materia Medica and Demonstrations on }	-	DR. BOWDITCH.
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Anatomy, Surgery and Medical Jurisprudence, by	-	

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Boston, August 19, 1910.

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August, 1910.

A. 26.—12t

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